

1

2 **Q. YOU HAVE DISCUSSED THE STANDARD INSTALLATION INTERVAL**
3 **FOR UNBUNDLED LOOPS. HAVE YOU CALCULATED THE ACTUAL**
4 **INSTALLATION INTERVAL?**

5 A. Based on the manual analysis of April and May, 1999 unbundled loop orders, the
6 actual installation interval was 6.2 days in April and 6.4 days in May. Based on the
7 mechanized reporting data provided by Mr. Williams, the unbundled loop
8 installation interval (Performance Measure OP-4) was 6.1 days in April, 6.5 days in
9 May, and 6.2 days in June.

10

11 **Q. WHILE IT IS NOT APPROPRIATE TO EXPECT UNBUNDLED LOOP**
12 **AND BASIC EXCHANGE SERVICE INSTALLATION INTERVALS TO BE**
13 **THE SAME, HAVE YOU COMPARED THE INTERVALS FOR THESE**
14 **TWO SERVICES?**

15 A. Yes. U S WEST has compared the installation intervals for basic exchange service
16 and unbundled loops in Nebraska. In order to provide a meaningful comparison of
17 installation intervals, it is necessary to segment retail orders into two classes: (1)
18 orders with no "inside" or "outside" technician work required, and (2) orders
19 requiring the dispatch of a technician. The following chart displays the installation
20 intervals for unbundled loops²² and basic exchange service in Nebraska for May and
21 June, 1999:

22

²² This analysis uses the mechanized unbundled loop installation interval data provided by Mr. Williams.

Average Installation Interval Comparison Retail and Loop Orders –				
	May		June	
Nebraska	Dispatched	Non Dispatched	Dispatched	Non- Dispatched
Retail Orders	6.9 days	3.6 days	8.0 days	3.9 days
Loop Orders	6.5 days	NA	6.2 days	NA

1
2 **Q. WHAT MEANINGFUL COMPARISON CAN BE MADE WITH THIS**
3 **DATA?**

4 A. As noted earlier, the installation of an unbundled loop always requires the dispatch
5 of a technician. Therefore, it is only meaningful to compare the installation interval
6 for an unbundled loop (6.5 days in May, 6.2 days in June) with the “dispatched”
7 basic exchange service interval (6.9 days in May, 8.0 days in June)²³. It is *not*
8 appropriate to compare the “non-dispatched” basic exchange installation interval
9 (3.6 days in May, 3.9 days in June)²⁴ with the unbundled loop installation interval
10 because the unbundled loop *always* requires the dispatch of a technician.

11
12 **Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THIS DATA?**

13 A. It may be readily seen that for the months of May and June, 1999, the average
14 installation intervals for unbundled loops in Nebraska compare favorably with the

23 The 6.9 and 8.0 day average installation intervals include all retail orders, and therefore include orders with customer initiated due dates that are beyond the standard interval.

24 The 3.6 and 3.9 day average installation intervals includes all retail orders, and therefore include orders with customer initiated due dates that are beyond the standard interval.

1 installation intervals for basic exchange service when the dispatch of a technician is
2 required. Although the installation of unbundled loops has no retail analogue, these
3 data demonstrate that the unbundled loop installation interval is reasonable even
4 when compared to basic exchange service. U S WEST's unbundled loop
5 provisioning intervals provide an efficient CLEC with a meaningful opportunity to
6 compete.

7
8 **3. Coordinated Installation**

9
10 **Q. PLEASE DESCRIBE THE COORDINATED INSTALLATION ORDERING**
11 **OPTION.**

12 A. With Coordinated Installation (coordinated cutover), a CLEC can schedule the
13 unbundled loop installation due date and a *specific appointment time*. When the
14 CLEC places its order, it specifies the time of day that it wishes the order to be
15 completed. On the actual due date, a U S WEST employee in the design center
16 coordinates the activities between the CLEC and U S WEST. A call is placed to the
17 CLEC in order to determine that it is ready for the service to be established. If the
18 CLEC indicates that it is ready, U S WEST central office and field work is
19 performed. If the CLEC indicates that it is not ready, a new appointment is
20 scheduled.

21
22 **Q. HOW DOES COORDINATED INSTALLATION BENEFIT THE CLEC?**

23 A. Coordinated installation provides the CLEC with the ability to establish a specific
24 service installation time for its customer, allowing the CLEC's end user to pre-plan

1 for minimal service interruption. This installation option establishes a critical link
2 between U S WEST and the CLEC to ensure that the work activities are performed
3 at the same time to minimize the impact to the CLEC's customer. As mentioned
4 earlier in my testimony, when switching an existing U S WEST customer to a
5 CLEC, the manual analysis indicated that 100% of the May, 1999 unbundled loop
6 orders were established via coordinated installation.

7
8 **Q. HAS U S WEST MEASURED THE AVERAGE AMOUNT OF TIME THAT**
9 **AN END USER CUSTOMER IS OUT OF SERVICE WHEN THE**
10 **"COORDINATED INSTALLATION" OPTION IS CHOSEN BY THE**
11 **CLEC?**

12 A. Yes. In June, 1999, U S WEST initiated a process to manually measure the impact
13 of converting an existing customer from U S WEST retail service to CLEC service
14 provided via an unbundled loop. During the month of June, a U S WEST central
15 office technician timed the duration of the "cutover" for all coordinated installations
16 in Nebraska. The technician measured the time from the moment the jumper wires
17 were "lifted" (i.e. the customer was taken out of service), to the "lay" of the jumper
18 wires to connect the loop to the CLEC (i.e. when the customer was put back in
19 service).²⁵

20
21 **Q. WHAT ARE THE RESULTS OF THIS STUDY?**

22 A. The average interval for all coordinated cuts between the "lift" and "lay" was 3
23 minutes

25 This is often referred to as "lift and lay."

1

2 **Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THIS INFORMATION?**

3 A. Coordinated installation allows a CLEC to establish service with minimal impact to
4 its end user customer. This provides an efficient CLEC with a meaningful
5 opportunity to compete.

6

7

4. Performance Measurements

8

9 **Q. HAS U S WEST ESTABLISHED PERFORMANCE MEASURES FOR**
10 **UNBUNDLED LOOP PROVISIONING AND INSTALLATION?**

11 A. Yes. Mr. Williams describes the unbundled loop installation core performance
12 indicators in his testimony. Core indicator OP-3 measures the percentage of
13 installation commitments met. This is calculated as the percentage of time the
14 completion date is the same as the service order due date. Core indicator OP-4
15 measures the unbundled loop installation interval. The installation interval is
16 defined as the average number of business days between the customer's application
17 date and the completion date. Core indicator OP-5 measures the percentage of
18 trouble reports that occur within 30 days of the installation of the service.

19

20 **Q. WHY HAS U S WEST ESTABLISHED THESE SPECIFIC CORE**
21 **INDICATORS?**

22 A. These core indicators measure how well U S WEST is delivering service to CLECs.
23 Thus, these performance indicators provide information with which the

1 Commission can determine whether a CLEC has a reasonable opportunity to
2 compete.

3
4 **Q. IS U S WEST PROVIDING UPDATED SERVICE RESULTS FOR THESE**
5 **PERFORMANCE MEASURES?**

6 A. Yes. Updated service performance results are contained in the testimony of Mr.
7 Williams. Based on the June data provided by Mr. Williams, the percentage of
8 commitments met (Core indicator OP-3) is 92.0% the average unbundled loop
9 installation interval (Core indicator OP-4) is 6.2 days, and the percentage of trouble
10 reports occurring within 30 days (Core indicator OP-5) is 2.0%.

11
12 **Q. HAS U S WEST FURTHER ANALYZED THE INSTALLATION**
13 **INTERVALS FOR UNBUNDLED LOOP ORDERS IN NEBRASKA?**

14 A. Yes. As I mentioned earlier in my testimony, U S WEST has conducted an
15 extensive manual analysis of all Nebraska unbundled loop orders provisioned in
16 April and May, 1999. U S WEST separately examined each unbundled loop order,
17 and tracked all relevant information, including the LSR received date, the
18 application date, the customer requested due date, the actual service order due date
19 and the service delivery due date.

20
21 **Q. WHAT ARE THE KEY RESULTS OF THIS ANALYSIS?**

22 A. From this analysis of all April and May, 1999 unbundled loop orders in Nebraska,
23 U S WEST was able to manually determine the average installation interval, and
24 then compare this data with the mechanized performance measure data described by

1 Mr. Williams. The following table compares the results of the manual analysis with
2 the mechanized performance indicator:
3

Average Installation Measurements Comparison Manual and Mechanized Calculations				
Performance Measures	APRIL		MAY	
	Manual	Mechanized	Manual	Mechanized
INSTALLATION INTERVAL	6.2 days	6.1 days	6.4 days	6.5 days

4
5 **Q. WHAT CONCLUSIONS DO YOU REACH BASED ON THIS**
6 **COMPARISON?**

7 A. The manual analysis and the mechanized reporting system described by Mr.
8 Williams provide consistent performance data.²⁶ Thus, the manual unbundled loop
9 analysis validates the unbundled loop service installation performance indicator
10 results contained in Mr. Williams' testimony.

11
12 **Q. BASED ON THIS INFORMATION, WHAT SHOULD THE COMMISSION**
13 **CONCLUDE?**

26 The service intervals in Mr. Williams' testimony are slightly different than the service intervals in the manual audit due to timing issues. The manual audit is based on orders completed in Wafa for the month and the mechanized report is based on service order processor (SOPS) data. Since orders "complete" in these two systems at different times, there are some orders that complete in one month for one system, and in another month for the other system.

1 A. Based on the information provided by Mr. Williams, and the manual analysis that I
2 have described, it is clear that U S WEST is installing unbundled loops in a
3 timeframe consistent with the standard service interval. This demonstrates that
4 U S WEST “provides unbundled loops to CLECs within a reasonable timeframe” as
5 required by the Commission, and that CLECs have a reasonable opportunity to
6 compete.

7

8 **5. Conclusion**

9

10 **Q. HOW SHOULD THE COMMISSION DETERMINE WHETHER U S WEST**
11 **IS INSTALLING UNBUNDLED LOOPS IN A “NONDISCRIMINATORY”**
12 **MANNER?**

13 A. First, the Commission should acknowledge that there is a significant difference
14 between installing an unbundled loop and installing basic exchange service. The
15 services are different, and the installation processes are necessarily different—
16 requiring different standard installation intervals.²⁷ The Commission should not
17 conclude that unbundled loops and basic exchange service must be installed in the
18 same timeframes in order to avoid “discrimination.” Instead, the Commission
19 should determine that the U S WEST unbundled loop installation intervals are
20 nondiscriminatory if these installation intervals provide an efficient CLEC with a
21 reasonable opportunity to compete. By providing unbundled loops to CLECs
22 within the standard service intervals as specified in the SGAT, and as described by

27 It is appropriate to compare the provisioning of retail basic exchange service with the provisioning of resold basic exchange service.

1 Mr. Williams, U S WEST is clearly providing efficient CLECs with a meaningful
2 opportunity to compete.
3

4 **D. Unbundled Loop Maintenance Process**
5

6 **Q. PLEASE DESCRIBE THE PROCESS FLOW FOR UNBUNDLED LOOP**
7 **MAINTENANCE.**

8 A. U S WEST maintains unbundled loops in Nebraska utilizing a defined maintenance
9 flow. Exhibit RHB-3 contains a flowchart that delineates the tasks performed by
10 U S WEST personnel in order to maintain unbundled loops. This exhibit also
11 includes a matrix that describes each of the work tasks identified in the flow chart.
12 U S WEST follows these steps each time U S WEST receives a trouble report in
13 Nebraska.
14

15 **Q. PLEASE BRIEFLY SUMMARIZE THE UNBUNDLED LOOP**
16 **MAINTENANCE PROCESS.**

17 A. CLECs report repair problems by issuing repair tickets using IMA or by calling
18 U S WEST's repair center. U S WEST accepts trouble reports only from the
19 CLEC—not the CLECs customer. A U S WEST trouble ticket is created and is
20 processed using the same systems and personnel as trouble tickets for U S WEST
21 retail services. The trouble ticket is passed to the appropriate groups to analyze, test

1 and fix any U S WEST problems that are discovered. The repair technician closes
2 the ticket when the trouble is resolved and the CLEC is notified.²⁸

3
4 **1. Retail vs. Unbundled Loop Maintenance**

5
6 **Q. IS THERE A RETAIL ANALOGUE FOR UNBUNDLED LOOP**
7 **MAINTENANCE?**

8 A. Yes. While the provisioning of unbundled loops cannot be compared with the
9 provisioning of basic exchange service, these services can be compared from a
10 maintenance perspective. The FCC has ruled that repair and maintenance of UNEs
11 should be conducted in substantially the same time and manner as repair and
12 maintenance of retail services.²⁹

13
14 **Q. IS IT APPROPRIATE TO ESTABLISH PERFORMANCE INDICATORS**
15 **FOR UNBUNDLED LOOP MAINTENANCE THAT ARE CONSISTENT**
16 **WITH RETAIL BASIC EXCHANGE SERVICE PERFORMANCE**
17 **INDICATORS?**

18
19 A. Yes. In order to avoid discrimination, U S WEST should maintain unbundled loop
20 service in a manner that is "substantially the same as" the manner in which it

28 U S WEST will also advise the CLEC if no trouble is found, or if the problem is not in the U S WEST network.

29 FCC Bellsouth Louisiana II Order, October 13, 1998, ¶ 145.

1 maintains retail basic exchange service for its own retail customers. The
2 Commission recognized this in its April 9 Order in this docket:

3
4 U S WEST must provide performance measurements that compare the service
5 it provides itself for loops with the quality of loop service that it provides to
6 competitors.³⁰

7
8 For this reason, as described by Mr. Williams, the maintenance performance core
9 indicators for unbundled loops are the same as the performance measures for basic
10 exchange service. I will describe these measures in the next section of my
11 testimony.

12
13 **2. Performance Measurements**

14
15 **Q. HAS U S WEST ESTABLISHED UNBUNDLED LOOP MAINTENANCE**
16 **PERFORMANCE MEASURES?**

17 A. Yes. Mr. Williams describes the unbundled loop maintenance core performance
18 indicators in his testimony. Core indicator MR-3 measures the percentage of times
19 in which an "out of service" condition is cleared within 24 hours. Core indicator
20 MR-4 measures the percentage of time all trouble reports are cleared within 48
21 hours. Core indicator MR-8 (Trouble Rate) measures the number of trouble tickets
22 as a percentage of total "units" (i.e., unbundled loops) in service.

23

30 Nebraska Order C-1830, April 9, 1999, page 27, ¶71.

1 These measures mirror the indicators for retail basic exchange service. As
2 displayed below U S WEST clears loop repair tickets in substantially the same time
3 frame as it clears repair tickets for retail basic services. In addition, the trouble rate
4 for unbundled loops is substantially the same as it is for retail services.
5
6

Average Maintenance Performance Indicator Comparison Loops and Retail Services				
Performance Indicators	APRIL		MAY	
	LOOPS	RETAIL	LOOPS	RETAIL
Out of Service Cleared –24 Hrs.	90%	76.3%	90%	61.5%
All Troubles Cleared – 48 Hrs.	100%	90.1%	90%	84.2%
Trouble Rate	0.9%	2.6%	0.8%	2.4%

7
8 The retail results represent a weighted average of the residence and business,
9 indicators.
10

11 **Q. DOES THE CONFIGURATION OF THE LOOP IMPACT ITS**
12 **MAINTENANCE AND REPAIR RECORD?**

13 A. No. The maintenance and repair performance for an unbundled loop is not
14 impacted by the loop configuration (i.e., the number of intermediate frames). That
15 is, there is no evidence of a greater incidence of trouble in instances where
16 additional intermediate frames are in place. It is also important to understand that
17 intermediate distribution frames are found on both unbundled loops and U S WEST
18 retail services. In large central offices, intermediate distribution frames are often

1 used to link two COSMIC frame modules connecting the originating and
2 terminating ends of a circuit. This avoids the use of a "long jumper" to connect the
3 two modules. This is no different than running jumpers to the intermediate frame
4 for an unbundled loop.

5
6 **Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THESE**
7 **PERFORMANCE RESULTS?**

8 A. U S WEST clears unbundled loop repair tickets as fast or faster than it clears retail
9 repair tickets for its retail customers, and the trouble report rate for unbundled loops
10 is less than the rate for retail services. It is clear that U S WEST provide
11 substantially the same level of service to its CLEC unbundled loop customers as it
12 does for its retail basic exchange service customers.

13
14 **E. The U S WEST Proposal for Access to UNEs**

15
16 **Q. PLEASE SUMMARIZE THE PROPOSAL FOR ACCESS TO UNES**
17 **OFFERED BY U S WEST IN THE NOVEMBER, 1998 HEARING IN**
18 **APPLICATION C-1830.**

19 A. In the Nebraska Section 271 Hearing in November 1998, U S WEST proposed that
20 access to UNEs be provided via a Single Point of Termination (SPOT) Frame,
21 where CLECs could access and combine unbundled network elements.

22
23 The U S WEST SPOT frame proposal included two options. With the first option,
24 a CLEC would receive access to UNEs at a *shared* SPOT frame, which could be

1 used by two or more CLECs. With this proposal, the CLEC would purchase access
2 to shared tie cables between the SPOT frame and the UNE at the COSMIC Frame.
3 With the second option, the CLEC would purchase access to a dedicated SPOT
4 frame, which would be assigned to the exclusive use of a single CLEC. Under both
5 proposals, the CLEC would have access to the SPOT Frame for the purpose of
6 combining two or more unbundled elements into a service. The CLEC would be
7 required to make jumper wire connections between the addresses on the SPOT
8 frame to complete the CLEC's circuit.

9
10 **Q. AT THE TIME THIS PROPOSAL WAS OFFERED, HAD THE FCC'S**
11 **RULE 315(b) BEEN VACATED BY THE EIGHTH CIRCUIT COURT?**

12 A. Yes. At the time U S WEST offered its SPOT Frame proposal, FCC Rule 315(b)—
13 which states that an incumbent LEC shall not separate requested network elements
14 that the incumbent LEC currently combines—had been vacated by the Eighth
15 Circuit Court. As the Commission noted in its April 9, 1999 Order:

16
17 At the time of the hearing, U S WEST proceeded under the ruling of the
18 Eighth Circuit Court of Appeals that it could sell the network elements
19 individually, or on an unbundled basis, and that the CLECs had to rebundle
20 them for their own use. U S WEST has proposed using a Single Point of
21 Termination (SPOT) Frame as a means for accomplishing this unbundling.³¹

22
23 As I noted earlier in my testimony, the Supreme Court has since reinstated Rule
24 315(b). This means that U S WEST will be required to provide pre-existing

31 Nebraska Order C-1830, April 9, 1999, page 21, ¶54

1 combinations of UNEs—at such time that UNEs are properly redefined by the FCC
2 in new rules that replace the vacated Rule 319.
3

4 **Q. IN ITS APRIL 9, 1999 ORDER, DID THE COMMISSION DETERMINE**
5 **THAT THE U S WEST SPOT FRAME PROPOSAL DID NOT SATISFY**
6 **THE REQUIREMENTS OF CHECKLIST ITEM 4?**

7 A. Yes. In its April 9, 1999 Order, the Commission found that the U S WEST SPOT
8 Frame proposal “does not satisfy the requirements of checklist item No. 4 for the
9 same reasons we detail in our discussion of checklist item No. 2.”³²
10

11 In discussing checklist item 2, the Commission stated:

12
13 Since the hearing, the Supreme Court has indicated that, if requested, RBOCs
14 must provide already-combined elements as combined, without separating
15 them. In light of the bundling requirement being reinstated after the hearing,
16 we cannot find that U S WEST satisfies this aspect of checklist item no. 2.³³
17

18 Further, in analyzing checklist item 1 (Interconnection), the Commission made the
19 following statement:

20
21 Further, since the hearing on this application, the Supreme Court has moved
22 some of the targets at which U S WEST must shoot to demonstrate
23 compliance with the checklist. As discussed above, one such area is the
24 provision of previously bundled elements as bundled. The substance of this
25 requirement falls under checklist item No. 2. However, U S WEST must also
26 demonstrate a concrete and specific legal obligation to provide such elements

32 Nebraska Order C-1830, April 9, 1999, page 27, ¶72

33 Nebraska Order C-1830, April 9, 1999, page 21, ¶54

1 as bundled . . . U S WEST has not shown that it has a legal obligation, under
2 interconnection agreements or elsewhere, to provide bundled elements.³⁴

3
4 Thus, the Commission has indicated that to meet the requirements of Section 271,
5 U S WEST must demonstrate that it *will be legally required* to provide bundled
6 elements, at such time that the unbundled elements per Section 251(c) are defined.
7 The Commission did not accept the U S WEST SPOT frame proposal specifically
8 because it did not address this requirement.

9
10 **Q. HOW IS U S WEST ADDRESSING THIS ISSUE IN ORDER TO**
11 **ALLEVIATE THE COMMISSION'S CONCERNS?**

12 A. As noted by the Commission, prior FCC decisions make it plain that UNE
13 combinations are a checklist item 2 concern.³⁵ However, the U S WEST Statement
14 of Generally Available Terms and Conditions (SGAT) filed with this Commission
15 on July 29, 1999 directly addresses the concerns offered by the Commission
16 regarding U S WEST's obligation to provide CLECs with access to pre-existing
17 combinations of UNEs. Section 9.12 of the SGAT states:

18
19 ...When a legally binding list of UNEs that satisfies the "necessary" and
20 "impair" standards of Section 251(d)(2) is in effect, U S WEST will,
21 upon request, allow CLEC to access preexisting combinations of such
22 network elements in accordance with 47 C.F.R. § 51.315(b).
23 Combinations of network elements available to CLEC are limited to
24 those combinations that:

34 Nebraska Order C-1830, April 9, 1999, page 11, ¶22.

35 This checklist item is not yet before this Commission.

- 1 a) consist exclusively of network elements that are contained within a
- 2 legally binding list of UNEs that satisfies the “necessary” and
- 3 “impair” standards of Section 251(d)(2);
- 4 b) consist exclusively of those specific network elements requested by
- 5 LEC that are available in the U S WEST network on a pre-existing,
- 6 combined state;
- 7 c) are provided to CLEC in its preexisting combined state; and
- 8 d) are available on an “as-is” basis.

9

10 Thus, U S WEST will provide CLECs with access to UNEs that are already

11 physically connected in a pre-existing combination, once the FCC issues a legally

12 binding list of UNEs under the new Rule 319. This should alleviate the

13 Commission’s concerns, and address its reasons for determining that the U S WEST

14 SPOT Frame proposal does not satisfy checklist item 4.

15

16 **Q: GIVEN THIS ADDITIONAL CONTRACTUAL LANGUAGE IN THE SGAT,**

17 **HAS U S WEST ADDRESSED ALL OF THE COMMISSION’S CHECKLIST**

18 **ITEM 4 ISSUES?**

19 A: I believe so. The SGAT language certainly addresses every express concern.

20

21 **Q. WHAT CONCLUSION, IF ANY, DID THE NEBRASKA COMMISSION**

22 **REACH WITH RESPECT TO WHETHER U S WEST’S SPOT FRAME**

23 **PROPOSAL WAS AN APPROPRIATE METHOD BY WHICH TO**

24 **PROVISION UNBUNDLED LOOPS?**

25 A. The Commission did not reach a conclusion on this subject. As I noted above, the

26 Commission rejected Checklist Item 4 for reasons that have nothing to do with the

27 viability of the SPOT frame. The only basis for questioning the SPOT frame as a

1 means by which to access UNEs (checklist item 2) is that it does not allow for the
2 provision of already combined elements in accordance with Rule 51.315(b), as
3 discussed above. Thus, by negative inference, it appears the Commission
4 recognized the value of the SPOT frame concept for the provision of individual
5 network elements such as the unbundled loop.
6

7 **Q. HAVE OTHER PARTIES EXPRESSED SUPPORT FOR U S WEST'S SPOT**
8 **FRAME PROPOSAL SINCE THE NOVEMBER, 1998 271 HEARING?**

9 A: Yes. As stated in the November 1998 hearing, Aliant Midwest supports use of the
10 SPOT frame as a means by which to provision network elements.³⁶ In addition, in
11 response to U S WEST discovery, Aliant stated that it "believes that the SPOT
12 frame proposal as set forth by U S WEST is an acceptable manner in which to make
13 unbundled elements network elements available pursuant to Section 251(c)(3)."³⁷
14

15 In addition, AT&T/TCG and MCI also recently indicated that they support the
16 SPOT frame as a means by which to provision individual UNEs, such as the
17 unbundled loop. AT&T has taken this position not once, but twice in various
18 dockets. First, in a written pleading filed in Colorado, AT&T/TCG and MCI stated
19 that the SPOT frame was an appropriate means by which to access elements such as
20 unbundled loops (see Exhibit RHB-4). Second, in the Nebraska Cost Docket
21 (Application C-1415), AT&T's outside expert, Steven Turner, testified that the

36 Transcript of Hearing in U S WEST's 271 Application at 1111 (November 20, 1998)

37 Aliant's Response to U S WEST Data Request No. 23.

1 SPOT frame was an appropriate means by which to provision individual elements
2 such as the unbundled loop:

3
4 Q. I WAS LISTENING TO YOUR . . . SUMMARY AND I THOUGHT
5 YOU SAID SOMETHING AND I JUST WANT TO MAKE SURE
6 THAT I HEARD YOU ACCURATELY. I THOUGHT YOU SAID
7 THAT THE SPOT BAY IS USEFUL IF YOU WANT TO PROVISION
8 . . . AN UNBUNDLED LOOP. . . .

9 A. I would think that would be very accurate is if you are connecting the
10 CLEC's network up to an unbundled element owned by the ILEC, that
11 the appropriate way to interconnect those would be at some form of
12 distribution frame such as the SPOT frame.³⁸
13
14

15 Thus, U S WEST is not alone in its view that an intermediate distribution frame
16 such as the SPOT frame is an appropriate means by which to make individual
17 network elements available to competitors.
18

19 **Q: HAS U S WEST ENHANCED ITS PROPOSAL FOR ACCESS TO UNES**
20 **SINCE THE NOVEMBER, 1998 271 HEARING?**

21 A. Yes. Since access to UNEs is a checklist item 2 issue, U S WEST plans to provide
22 details regarding its enhanced proposal in a later phase of this proceeding.
23 However, I will provide a brief summary of the key aspects of the enhanced
24 proposal here.
25

³⁸ Transcript of U S WEST's Permanent Cost Docket at 1026 (Cross Examination of Steven Turner).

1 Under the original SPOT Frame proposal, U S WEST would place a SPOT Frame
2 near a CLEC's collocation space. All CLECs would be required to access the
3 SPOT Frame as the demarcation point for obtaining access to UNEs. With the
4 enhanced proposal, a CLEC could access UNEs at other intermediate distribution
5 frames within the central office, or could access UNEs at a demarcation point
6 located in the CLEC's collocation space. Thus, the new proposal, which is
7 described in Section 8 of the SGAT, provides several more options to the CLEC.

8
9 In the November, 1998 hearing, U S WEST stated that, although its SPOT frame
10 proposal was not in a formal agreement, it would agree to abide by the terms of the
11 proposal described in the hearing. Now, in Section 8 of the SCAT, U S WEST has
12 made explicit its concrete and specific legal obligation to provide CLEC access to
13 UNEs.

14
15 **V. CHECKLIST ITEMS 5 & 6 -UNBUNDLED TRANSPORT AND SWITCHING**

16
17 **A. Introduction / Commission Issues**

18
19 **Q. HAS THE FCC ESTABLISHED CRITERIA FOR DETERMINING**
20 **WHETHER AN INCUMBENT LEC IS "PROVIDING" A CHECKLIST**
21 **ITEM, SUCH AS SWITCHING AND TRANSPORT?**

22 **A.** Yes. The FCC determined that in order to establish that it is "providing" a checklist
23 item, an incumbent LEC must:

1
2 . . . demonstrate that it has a concrete and specific legal obligation to furnish
3 the item upon request pursuant to a state-approved interconnection agreement
4 or agreements that set forth prices and other terms and conditions for each
5 checklist item, and that it is currently furnishing, or is *ready to furnish*, the
6 checklist item in the quantities that competitors may reasonably demand and
7 at an acceptable level of quality. . . ”³⁹ (emphasis added).
8

9 The FCC goes on to say that in situations where no commercial usage exists, it will
10 consider the results of testing in determining whether a checklist item has been
11 met.⁴⁰
12

13 **Q. IS U S WEST CURRENTLY PROVIDING UNBUNDLED TRANSPORT**
14 **AND SWITCHING TO CLECS IN NEBRASKA?**

15 A. No. At the present time, no CLEC has ordered unbundled transport or switching
16 from U S WEST in Nebraska.
17

18 **Q. IF NO CLECS HAVE ORDERED UNBUNDLED TRANSPORT AND**
19 **SWITCHING, HOW CAN U S WEST DEMONSTRATE COMPLIANCE**
20 **WITH CHECKLIST ITEMS 5 AND 6?**

21 A. As the Commission stated in its April 9, 1999 Order, “Where evidence of
22 commercial use does not exist, the FCC has said the RBOCs can submit testing
23 results as evidence of their ability to provide UNEs.”⁴¹

39 FCC BellSouth Louisiana II Order, October 13, 1998, ¶ 54.

40 FCC BellSouth Louisiana II Order, October 13, 1998, ¶ 56.

41 Nebraska Order C-1830, April 9, 1999, page 29, ¶79.

1

2 **Q. WHY DID THE COMMISSION DETERMINE THAT U S WEST WAS NOT**
3 **IN COMPLIANCE WITH CHECKLIST ITEMS 5 AND 6?**

4 A. The Commission determined that U S WEST had not satisfied the requirements of
5 checklist items 5 and 6 because it did not include the results of such testing in its
6 application.

7

8 In response to the Commission's finding, I am presenting the results of the 1999
9 Bench Test for the provision of the transport and switching UNEs. This test, which
10 is described in Section E below, demonstrates that U S WEST stands ready to
11 provide unbundled transport and switching to CLECs in a timely and
12 nondiscriminatory manner. Thus, the Commission should find that U S WEST has
13 satisfied the requirements of checklist items 5 and 6.

14

15 **B. Unbundled Transport and Switching Provisioning Process**

16

17 **Q. HOW WILL U S WEST PROVISION UNBUNDLED TRANSPORT AND**
18 **UNBUNDLED SWITCHING?**

19 A. U S WEST will provision unbundled transport and switching in Nebraska utilizing
20 a defined order and provisioning flow. Exhibit RHB-5 contains a flowchart that
21 delineates the tasks performed by U S WEST personnel in order to provide
22 unbundled transport. Exhibit RHB-6 contains a flowchart that delineates the tasks
23 performed by U S WEST personnel in order to provide unbundled switching. Each
24 of these exhibits also include a matrix that describes each of work tasks identified in

1 the flow chart. U S WEST will follow these steps each time unbundled transport
2 and/or unbundled switching is ordered in Nebraska.

3
4 **C. Unbundled Transport and Switching Maintenance Process**

5
6 **Q. PLEASE DESCRIBE THE PROCESS FLOWS FOR UNBUNDLED**
7 **TRANSPORT AND SWITCHING MAINTENANCE.**

8 A. U S WEST will maintain unbundled transport and switching in Nebraska utilizing
9 defined maintenance flows. Exhibit RHB-7 contains a flowchart that delineates the
10 tasks performed by U S WEST personnel in order to maintain unbundled transport.
11 Exhibit RHB-8 contains a flowchart that delineates the tasks performed by
12 U S WEST personnel in order to maintain unbundled switching. These exhibits
13 each include a matrix that describes all of the work tasks identified in the flow
14 chart. U S WEST will follow these steps each time U S WEST receives a trouble
15 report in Nebraska.

16
17 **D. The "Bench Test" for Unbundled Transport and Switching**

18
19 **Q. HAS U S WEST PERFORMED A TEST WHICH DEMONSTRATES THAT**
20 **U S WEST CAN SUCCESSFULLY PROVISION UNBUNDLED**
21 **TRANSPORT AND SWITCHING IN NEBRASKA?**

22 A. Yes. In May and June of 1999, U S WEST conducted a "Bench Test" which
23 demonstrates that U S WEST can, upon CLEC request, provision and maintain

1 unbundled transport and switching⁴² in a timely and nondiscriminatory manner.
2 The results of this test reinforce the results of the “lab-controlled” bench test
3 conducted in 1998, which was referenced by Karen Stewart during the November,
4 1998 hearing.

5
6 A complete description of the 1999 “bench test” study methodology and the results
7 of the test are contained in Exhibit RHB-9. In the following sections of my
8 testimony, I will provide a general description of the study, and highlight some of
9 its significant findings.

10
11 **Q. WHAT UNBUNDLED ELEMENTS WERE TESTED?**

12 A. The 1999 Bench Test of Unbundled Elements tested the provision of:

- 13
14 • Unbundled Dedicated Interoffice Transport (UDIT).
15 • Unbundled Switching Message Trunk Port & Message Trunk Group and
16 Members.
17 • Unbundled Analog Line Port
18 • Custom Routing
19 • Unbundled Customer Controlled Reconfiguration Element (UCCRE)

20
21 The Bench Test also tested the transmission of a “test call” over the unbundled
22 elements that were provisioned.

23

42 The test included operator services and directory assistance completion and branding.

1 **Q. HAVE THESE NETWORK ELEMENTS BEEN DESCRIBED BY U S WEST**
2 **PREVIOUSLY IN THIS DOCKET?**

3 A. In most cases, yes. With the exception of UCCRE, each of these elements was
4 described in testimony provided earlier in this proceeding. Please refer to pages 23
5 through 38 of the direct testimony of Ms. Karen Stewart filed on June 23, 1998 for
6 a description of these elements.

7

8 **Q. PLEASE BRIEFLY DESCRIBE UCCRE AND THE FUNCTIONALITY IT**
9 **PROVIDES TO THE CLEC.**

10 A. The Unbundled Customer Controlled Reconfiguration Element (UCCRE) gives a
11 CLEC the ability to connect elements together into a network and reconfigure the
12 network on a near-real-time basis. The software system used with the Customer
13 Controller enables the CLEC to reconfigure groups of channels using a single
14 command. For example, all 24 DS0 channels from a DS1 port may be reconfigured
15 using a single command. UCCRE is a part of the Unbundled Dedicated Interoffice
16 Transport (UDIT) package of UNEs and may be used with UNEs and connections
17 to the CLEC's collocated equipment. Other Interconnector Designated Equipment
18 (IDE) and U S WEST-provided UNEs may be connected to the UCCRE Intelligent
19 Network Element, usually a Digital Cross-Connect System (DCS).

20

21 **Q. PLEASE DESCRIBE THE OVERALL METHODOLOGY USED IN THE**
22 **BENCH TEST.**

23 A. The Bench Test tested (1) the provision of unbundled switching, transport and
24 UCCRE orders in Phoenix, Arizona and Omaha, Nebraska and (2) the repair and

1 maintenance of these elements. In the Bench Test, *actual orders were placed and*
2 *completed* for each unbundled element tested. These orders followed the order
3 provisioning processes outlined in the provisioning flow diagrams contained in the
4 exhibits to my testimony. An LSR and ASR were written and sent to the Service
5 Delivery Coordinator and orders were then sent all the way through the
6 provisioning process, using all of the appropriate Operational Support Systems
7 (OSS). In Arizona, the physical connection was completed and for both states the
8 billing was established. Thus, the entire process, from delivery of an ASR/LSR to
9 billing the customer was tested.

10
11 The Bench Test included the transmission of "test calls" over the unbundled
12 elements that were provisioned. The test calls generated local minutes of use which
13 were captured by AMA equipment, allowing a summary bill to be created. After
14 provisioning was completed, trouble reports were processed to test and validate
15 U S WEST processes and procedures for the repair/maintenance of these services.

16
17 **Q. PLEASE DESCRIBE THE METHODOLOGY USED TO TEST**
18 **UNBUNDLED SWITCHING.**

19 A. The Bench Test tested the provision of unbundled switching orders in Arizona and
20 Nebraska. For Nebraska, the unbundled analog line port orders were provisioned in
21 the DMS 100 switch located at the Omaha 84th Street central office.

22
23 In the Phoenix, Arizona North East #5ESS switch test, unbundled analog line ports
24 were provisioned and services were physically installed and tested, following the

1 exact process that would be followed when service is installed for a CLEC
2 customer. In the Nebraska test, all of the order provisioning steps were completed,
3 but the actual ports were not physically installed (i.e., a jumper was not installed to
4 complete the circuit).⁴³

5
6 The unbundled analog line ports required the establishment and deployment of a
7 unique measured Line Class Code (LCC) with Shared Transport, blockage of 900
8 calls and Custom Routing to a dedicated trunk group for OS/DA traffic. A
9 dedicated combined OS/DA trunk group with branding was established between the
10 Phoenix North East #5ESS switch and the Toll Operator Switch (TOPS) in the
11 Phoenix Main central office. The unbundled analog line port was terminated on a
12 designated Interconnection Distribution Frame (ICDF).

13
14 **Q. PLEASE DESCRIBE THE METHODOLOGY USED TO TEST**
15 **UNBUNDLED TRANSPORT.**

16 A. Unbundled Interoffice Transport (UDIT) orders were provisioned for transport
17 between the Omaha 84th St. central office and the Omaha Main central office.
18 UDIT orders were provisioned and physically installed between the Phoenix,
19 Arizona North East central office and the Phoenix, Arizona Main central office.
20 The UDIT was terminated on a designated Interconnection Distribution Frame
21 (ICDF). Orders were also provisioned and installed to test Unbundled Customer
22 Control Reconfiguration Element (UCCRE). In the Nebraska test, all of the order

43 This is a simple and routine physical installation.

1 provisioning steps were completed, but the actual UDIT was not physically
2 installed.⁴⁴
3

4 **Q. PLEASE DESCRIBE THE METHODOLOGY FOR THE “TEST CALL.”**

5 A. The unbundled analog line ports were wired to a telephone within the central office,
6 rather than an unbundled loop, to allow test calls. Calls involving both local
7 originating and terminating and OS/DA traffic were successfully completed.
8

9 **Q. HOW IS THE 1999 BENCH TEST DIFFERENT FROM THE 1998 BENCH**
10 **TEST?**

11 A. The 1998 Bench Test, which I have included as Proprietary Exhibit RHB-10 of my
12 testimony, provided a “laboratory” test of the provisioning, or processing of orders
13 through all the Operational Support Systems (OSS). In the 1998 test, all of the
14 steps required to provision unbundled network elements were tested, from the order
15 request to the “turn up” of service. However, this procedure involved test systems
16 in a laboratory environment in the Mineral building in Littleton, Colorado, rather
17 than production systems in the field. The 1999 Bench test, as I have described,
18 involved real time testing, in a production environment, of all steps in the
19 unbundled network element provisioning process.
20

21 **Q. DOES THE 1999 BENCH TEST VALIDATE THE FINDINGS OF THE 1998**
22 **TEST?**

44 The physical installation of UDIT represents a simple and routine installation.

1 A. Yes. The 1999 Bench Test validates and provides substantial detailed evidence to
2 support the 1998 Bench test that was described in Ms. Karen Stewart's testimony.

3
4 **Q. DID THE 1999 BENCH TEST IDENTIFY ANY PROVISIONING ISSUES?**

5 A. Yes. In some cases, the initial test order "dropped out" due to an input error or a
6 missing entry in a table.⁴⁵ As these errors were identified, the provisioning systems
7 were corrected. *In all cases, after the error on the initial order was corrected, the*
8 *initial and all subsequent orders were successfully processed through the*
9 *U S WEST systems.* For example, as noted in the study documentation in Exhibit
10 RHB-9 (see section 5.04.8) the initial Analog Line Port order errored out because
11 SOAC USOC table field did not have the proper code for a DMS-100 switch. The
12 SOAC tables for all DMS-100 switches were updated to include the proper code,
13 and the order was resent through the system and processed successfully. It is
14 important to understand that in the Bench Test, errors were corrected in a manner
15 that would prevent the same error happening in subsequent orders.

16
17 The problems uncovered in the Bench Test were not significant in nature, and did
18 not jeopardize any of the critical dates. In each case, despite the correction of
19 problems, all critical interval dates were met, and the service was delivered on the
20 due date. Thus, in each instance, U S WEST was able to provision each item on
21 time.

22

45 This is not an uncommon occurrence when testing the provision of a new service using new processes.

1 Please refer to Exhibit RHB-9 for a description of the test steps for each unbundled
2 element, the errors encountered, and the corrective steps taken.

3
4 **Q. WHAT CONCLUSIONS SHOULD THE COMMISSION REACH BASED**
5 **ON THE BENCH TEST?**

6 A. The Bench Test clearly demonstrates that the processes are in place for U S WEST
7 to successfully provision CLEC orders for unbundled transport and switching in a
8 timely, accurate and non-discriminatory manner. The Bench Test demonstrates that
9 U S WEST is able to install, repair/maintain and bill these elements. For each
10 unbundled element, the provisioning processes worked successfully—from the pre-
11 order transactions, through the submission of an ASR/LSR, the order handling steps
12 and the physical installation of the element, and concluding with the rendering of a
13 bill. In addition, the testing of the repair and maintenance processes and procedures
14 successfully demonstrated U S WEST's capability to perform this function for these
15 elements. The Bench Test proves that U S WEST can provision and install, within
16 standard installation intervals, unbundled transport and switching when requested
17 by a CLEC.

18
19 **E. Shared Transport**

20
21 **Q. DOES U S WEST HAVE A CONTRACTUAL OBLIGATION TO PROVIDE**
22 **SHARED TRANSPORT TO CLECS IN NEBRASKA?**

23 A. Yes. Section 9.5 of the U S WEST Nebraska SGAT, filed on July 29, 1999,
24 delineates U S WEST's obligation to provide shared transport to CLECs. CLECs

1 may order shared transport according to the terms and conditions outlined in this
2 section of the SGAT—terms that are consistent with FCC rulings on shared
3 transport.

4
5 **Q. IS THERE EVIDENCE WHICH DEMONSTRATES THAT U S WEST CAN**
6 **PROVISION SHARED TRANSPORT SERVICE AS OUTLINED IN THE**
7 **SGAT?**

8 A. Yes. When U S WEST provides shared transport to a CLEC, the CLEC must also
9 purchase unbundled switching, since the provision of shared transport is dependent
10 on the routing tables in the switch. When the CLEC purchases unbundled
11 switching and shared transport, the CLEC calls follow the same transmission path
12 as U S WEST's traffic. Thus, shared transport is the same service that U S WEST
13 provides to itself. Since U S WEST can provide switched services over its shared
14 network today, this provides evidence that it is able to provide shared transport to
15 CLECs.

16
17 **Q. DID THE FCC ADDRESS SHARED TRANSPORT IN ITS BELLSOUTH**
18 **LOUISIANA 271 ORDER?**

19 A. Yes. Regarding BellSouth's provision of shared transport, the Commission stated:

20
21 BellSouth provides sufficient evidence that it meets the requirements set forth
22 in the Local Competition First Report and Order and Local Competition Third
23 Reconsideration Order with respect to shared transport facilities. For
24 example, BellSouth represents that it offers to provide shared transport when a
25 competitive LEC requests unbundled local switching, and that the traffic of
26 competitive LECs follows the same transmission path as BellSouth's traffic
27 does. Moreover, BellSouth maintains that it offers shared transport "between

1 all BellSouth tandems and BellSouth switches that subtend those tandems.”
2 We interpret this statement to mean that BellSouth complies with the
3 Commission’s requirement that it provide shared transport between end
4 offices, between end offices and tandem switches, and between tandem
5 switches. BellSouth also asserts that it permits requesting carriers that
6 purchase unbundled shared transport to use the same routing table that is
7 resident in BellSouth’s switch.⁴⁶ (underlined emphasis added)
8
9

10 **Q. WHAT RELEVANCE DOES THE FCC’S DECISION IN LOUISIANA**
11 **HAVE TO THIS CASE?**

12 A. The FCC found that BellSouth complied with the FCC’s requirements regarding
13 shared transport. Since the shared transport offered by U S WEST is essentially the
14 same as the shared transport offered by BellSouth, one can assume that the FCC
15 would reach the same conclusion regarding the U S WEST shared transport service.
16 Like BellSouth, U S WEST “represents that it offers to provide shared transport”
17 via the SGAT. Like BellSouth, “the traffic of competitive LECs follows the same
18 transmission path as BellSouth’s (U S WEST’s) traffic does.” Like BellSouth,
19 U S WEST “offers shared transport between all tandems and switches that subtend
20 those tandems.” Therefore, U S WEST, like BellSouth, “complies with the
21 Commission’s requirement that it provide shared transport between end offices,
22 between end offices and tandem switches, and between tandem switches.”
23

24 The U S WEST shared transport offering, as defined in the SGAT, meets the
25 requirements outlined by the FCC.
26

⁴⁶ FCC BellSouth Louisiana II Order, October 13, 1998, ¶ 204.

1 **Q. WHILE SHARED TRANSPORT IS ESSENTIALLY THE SAME AS THE**
2 **SWITCHED SERVICE THAT U S WEST PROVIDES TO ITS**
3 **CUSTOMERS, WILL IT BE BILLED IN THE SAME MANNER AS**
4 **U S WEST RETAIL SERVICES?**

5 A. No. Shared transport will be billed differently than basic exchange service. Since
6 shared transport will be billed on a per minute of use basis, it is necessary to show
7 that minute of use data can be captured for billing purposes. The "call test"
8 included in the Bench Test demonstrates that this data (i.e., AMA data) can be
9 captured.

10
11 **Q. REGARDING SHARED TRANSPORT, WHAT SHOULD THE**
12 **COMMISSION CONCLUDE?**

13 A. The Commission should determine that U S WEST has met all Section 271
14 requirements for checklist item 5 (transport). The Commission should find that
15 U S WEST, with the shared transport offering in the SGAT, is meeting all
16 obligations to provide shared transport. The Commission should also conclude that
17 U S WEST has demonstrated that it can provide shared transport service to CLECs
18 in a nondiscriminatory manner, since it now provides the service to its own
19 customers successfully.

20
21 **VI. CONCLUSION**

22
23 **Q. WHAT ACTION SHOULD THE COMMISSION TAKE IN THIS**
24 **PROCEEDING?**

1 A. Based on the evidence provided in my testimony, and in the testimonies of Mr.
2 Williams and Mr. Weidenbach, the Commission should reach a finding that
3 U S WEST has met the requirements set forth in Section 271(c) of the Act for
4 checklist items 4, 5 and 6. U S WEST has demonstrated that a CLEC can purchase
5 unbundled loops, switching and transport from U S WEST today in a manner that
6 provides the CLEC with a meaningful opportunity to compete in Nebraska.

7
8 In its April 9, 1999 Order, the Commission determined that U S WEST had not
9 demonstrated that it complied with checklist items 4, 5 and 6. The Commission
10 provided a description of the additional evidence that U S WEST would need to
11 present in order to demonstrate that it has fully satisfied the Section 271 criteria in
12 Nebraska. U S WEST has now met that burden of proof. In this testimony, I
13 provided the additional evidence requested by the Commission, and demonstrated
14 that U S WEST is in compliance with the requirements of checklist items 4, 5 and
15 6. In summary, my testimony has shown that:

- 16
- 17 • U S WEST provides unbundled loops to CLECs in Nebraska today in a
18 nondiscriminatory manner. The installation intervals offered by
19 U S WEST provide a CLEC with a reasonable opportunity to compete.
 - 20 • U S WEST does not currently provide unbundled switching and transport
21 to CLECs in Nebraska. However, the 1999 Bench Test demonstrates that
22 U S WEST can provide these services to CLECs today, in a
23 nondiscriminatory manner.
- 24

1 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

2 **A. Yes, it does.**